

E.5 WRITTEN COMMENTS AND NNSA RESPONSES

All comments submitted in writing to NNSA via the U.S. mail, e-mail, and fax during the public comment period are reproduced in this section. This section provides a side-by-side display of the written comments received (full-text reproductions) and NNSA's responses. Individual comments are numbered in the margins of the comment letters, and NNSA responses to each of the numbered comments are provided on the right side of each page.

**Commentor No. 1: Pueblo De San Ildefonso,
John Gonzales, Governor**



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Office of Governor

SI-GC03-242

June 19, 2003

Elizabeth R. Withers
CMRR EIS Document Manager
U.S. DOE/NNSA
Los Alamos Site Office
528 35th Street
Los Alamos, New Mexico 87544-2201

Dear Ms. Withers:


The Pueblo of San Ildefonso appreciates the opportunity to comment on the *Draft Environmental Impact Statement for the Proposed Chemistry and Metallurgy Building Replacement Project at Los Alamos National Laboratory (CMRR DEIS)*. After our review of the document, the Pueblo believes that certain considerations as to the impact upon the Pueblo's environmental and cultural resources have not been adequately addressed. Please refer to the specific comments attached to this letter.

The Pueblo is disappointed that DOE did not fully consider Environmental Justice and the environmental health risks to the Pueblo population as envisioned by the Environmental Health Protection Project recently submitted to DOE and LANL.

Due to the proximity of the proposed CMRR and potential adverse impact upon the Pueblo's environmental health and cultural resources, DOE should fully consider implementation of measures that will protect the environmental health and integrity of our community.

Should you wish to discuss the Pueblo's position in detail, do not hesitate to contact me.

Sincerely,


John Gonzales
Governor

Attachment

Cc: Ralph Erickson, Manager, LASO
Neil Weber, DECP

Response to Commentor No. 1

1-1

1-1: The NNSA notes the Governor's disappointment and concerns regarding the *CMRR EIS*. Given that the referenced Environmental Health Protection Project Plan was submitted to the NNSA Los Alamos Site Office on April 17, 2003, NNSA was not able to consider this document in the preparation of the Draft EIS. The Draft EIS document was already being printed on that date. The Plan remains under separate review at this time. NNSA fully considers the implementation of measures protective of the human health and environmental well being of all LANL neighbors in its undertakings.

**Commentor No. 1: Pueblo De San Ildefonso,
John Gonzales, Governor (Cont'd)**

**COMMENTS ON THE DRAFT ENVIRONMENTAL
IMPACT STATEMENT FOR THE CHEMISTRY AND
METALLURGY RESEARCH BUILDING
REPLACEMENT PROJECT**

GENERAL COMMENT

The CMRR facility is projected to operate for a minimum of fifty (50) years, and is generally assumed to have the same amount of operational impacts, i.e. equivalent amounts of emissions and radioactive releases to the surrounding environment, in addition to the associated transportation impacts over the same period. The CMRR facility analysis of human health risks and environmental impacts has not kept pace with the latest technological advancements in genetic medicine and integrated environmental health essential to the emergency preparedness, and establishment of preventive and early diagnostic measures from potential exposure damages for community health care. In this context, we strongly believe that the NEPA and associated environmental health risks to the San Ildefonso Pueblo (Pueblo) community and its cultural resources will have to be addressed and managed within the broader framework envisioned by the Pueblo Department of Environmental and Cultural Preservation (DECP) Environmental Health Plan (EHP), which was submitted to the NNSA Los Alamos Site Office on April 17, 2003.

Without the minimum tribal human resources, infrastructure and technologies requested by the EHP, the Pueblo community does not have the basic means to effectively participate in the protection and maintenance process of its own health and welfare over the anticipated 50 years of operation of the proposed CMRR, especially within the context of the vulnerable Pueblo critical subpopulations and their unique culture-based exposure scenarios and in light of the existing genomic and biomedical technologies. Please note that the Pueblo population is culturally inseparable from the aboriginal homeland environment and the endemic biological resources.

DECP requests that NNSA consider and recognize the minimum requests made by the submitted EHP proposal as part of the pertinent comments on this EIS.

SPECIFIC COMMENTS BY SECTION

SUMMARY

1. The summary states that; "NNSA's overall concept for TA-55 would have it contain all or at least most of the Security Category I nuclear operations needed for LANL operations"; and "NNSA is separately considering the construction and operation of a pit manufacturing facility on a scale greater than can currently be accommodated by LANL's existing facilities and is considering LANL's TA-55 as a possible site (though it is not currently identified as the preferred site location)."

Response to Commentor No. 1

- 1-2:** The use of the same amounts of emissions, effluents, and other environmental effects as were projected for the existing CMR Building under the Expanded Operations Alternative analyzed in the *LANL SWEIS* is intended to be bounding for potential impacts of a new CMRR Facility. The actual CMRR Facility would be expected to have lower levels of emissions, effluents and other environmental effects due to more modern, technologically advanced design features and equipment not present at the existing CMR Building.
- 1-3:** The *CMRR EIS* was prepared in compliance with NEPA and implementation regulations adopted by the Council on Environmental Quality and the DOE. The *CMRR EIS* uses standard human health risk assessment methodology approved by the Environmental Protection Agency; it also makes use of the most up to date computer modeling programs. The type of predictive analyses needed to assess human health risks potentially associated with operating a new future facility are not the same as those that would likely be germane to genetic medicine and emergency preparedness, or the establishment of early diagnostic measures for community health care. The commentor's stated beliefs regarding how the NEPA analyses should be performed are noted; the NNSA will consider this issue related to future NEPA analyses after the Los Alamos Site Office staff has sufficiently reviewed the referenced Environmental Health Plan.
- 1-4:** NNSA notes the commentor's concern that the consolidation of Security Category I operations at TA-55 would result in disparate impacts on minorities. Regardless of the number, size, level, or type of operations performed at facilities located within LANL's TA-55 or elsewhere at LANL, the effluent that would be collected, treated and discharged from the Radioactive Liquid Waste Treatment Facility (RLWTF) must meet stringent discharge parameters before it is released into the environment. Therefore, significant quantities of pollution would not be released to Mortandad Canyon, which drains onto San Ildefonso property. The existence of multiple Security Category I nuclear facilities at the head of Mortandad Canyon would not affect the quality of the discharge of treated water from the RLWTF. No matter where facilities were to be placed within LANL, all liquid radioactive liquid wastes would likely be directed either via pipeline or by truck transport to the RLWTF. Aggregate risk of operating multiple facilities at LANL was the focus point of the *LANL SWEIS* analyses. This programmatic analysis will be reviewed and

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Please note that a basic tenet of Environmental Justice is that no group of people should shoulder a disproportionate share of negative environmental impacts. No group should suffer a disparate impact due to exposure from the aggregation of risk from multiple sources of pollution. The CMRR Project is part of the NNSA goal of consolidating facilities at TA-55. These facilities have the potential to release large amounts of pollution to Mortandad Canyon, which drains onto San Ildefonso property. Environmental Justice requires an evaluation of the aggregate risk of placing multiple Security Category I nuclear facilities at the head of Mortandad Canyon.

Further, please consider the possibility that concentrating all or most Security Category I nuclear operations in one area may make them more vulnerable to natural or man-made disasters.

2. Part of both Alternatives 1 and 2 is sending radioactive liquid waste to the TA-50 Radioactive Liquid Waste Treatment Facility. With either of these Alternatives, the waste effluent is still released to Mortandad Canyon, which drains onto San Ildefonso property.

VOLUME 1 (CHAPTERS 1 THROUGH 10; APPENDICES A THROUGH F)

CHAPTER 2 PROJECT DESCRIPTION AND ALTERNATIVES

2.5.2 Alternative 1 (Preferred)

1. Figure 2-2 gives the impression that the proposed facility boundary extends across Pajarito Road. Will the road be moved, or is this merely an artifact of creating the figure?

2.7.7.4 Waste Management and Pollution Prevention Techniques

1. This section describes the fate of radioactive waste being either disposal at TA-54 Area G or an offsite commercial facility. Please note that Area G borders the San Ildefonso Sacred Area, and is a potential source of pollution to tribal land, and every shipment to Area G increases the potential impact.

CHAPTER 3 AFFECTED ENVIRONMENT

3.11.4 Accident History

1. The CMR accident history includes spills, stack releases, and fires. This section should address lessons learned and how they will be applied to the CMRR.

CHAPTER 4 ENVIRONMENTAL IMPACTS

4.3.7.3 Traditional Cultural Properties

1. This section states; "If any traditional cultural properties were located during construction, work would stop while appropriate action would be undertaken." Please clarify what is meant by "appropriate action".

1-4
(Cont'd)

1-5

1-6

1-7

1-8

1-9

1-10

Response to Commentor No. 1

potential impacts associated with new or changed activities or operations, changes to the site, and new or decommissioned buildings and facilities will be considered for any cumulative changes to environmental impacts at LANL in 2004, and again in 2009. If the CMRR Facility and the MPF are approved for siting at LANL, impacts from these projects will be subject to this review.

1-5: The NNSA notes the commentor's concerns regarding the potential risks from natural or man-made disasters that could result from consolidating Security Category I nuclear operations at one LANL area, and shares this concern. This risk would be a key consideration in the design and construction of new facilities and their associated security measures, if these proposals are approved for TA-55 at LANL.

1-6: The NNSA would like to clarify that all four action alternatives would generate radioactive liquid wastes that would be transported to the TA-50 RLWTF, which releases its treated effluent into Mortandad Canyon. Present and future discharges to the Canyon from TA-50 must meet stringent discharge parameters, and would pose small radiological risks to adjacent property.

1-7: The referenced Figure 2-2 shows the approximate area at TA-55 available for siting the CMRR Facility. It is not intended to show a change in the TA boundary onto the opposite side of Pajarito Road or relocation of the road.

1-8: The issue of radioactive waste being placed at Area G within LANL's TA-54 waste management facility, which is located adjacent and upwind and upstream from the San Ildefonso Sacred Area, is noted by NNSA as requested.

1-9: Lessons Learned from past CMR Building activities and operations are being used in the preliminary CMRR Facility planning and would be used in the detailed design if NNSA decides on an action alternative for the project. As the Facility designs were developed, formal reviews and conduct of value engineering studies required by DOE Order 413.3 would be conducted to ensure implementation of current standards and codes, as well as the inclusion of best practices proven through operational experience. The preliminary CMRR Facility plan for the separation of administrative office space from Hazard Category II and III laboratory

Commentor No. 1: Pueblo De San Ildefonso, John Gonzales, Governor (Cont'd)

4.3.9.2 Facility Accidents

1. The accident scenario should include TA-55 as a whole. It would be impossible to separate the effects of the different facilities due to (for example) an earthquake, or man-made disaster.

1-11

4.3.10 Environmental Justice

1. This section is restricted to discussing fatalities and illness. Environmental Justice also addresses the effects of disparate impacts due to exposure from the aggregation of risk from multiple sources of pollution. The CMRR is a component of a disparately high number of facilities in one location with the potential to significantly pollute Tribal land. Also, harmful effects on Tribal land can not be strictly measured by numbers of additional cancers per year, but also by the presence of ANY amount of pollution in sacred areas.

1-12

4.4.5.1 Surface Water

1. This is to reiterate the earlier comment that with any of the alternatives, effluent will still be released from the TA-50 RLWTF into Mortandad Canyon, which drains onto San Ildefonso land.

1-13

4.4.7.3 Traditional Cultural Properties

1. This section states; "If any traditional cultural properties were located during construction, work would stop while appropriate action would be undertaken." Please clarify what is meant by "appropriate action".

1-10
(Cont'd)

4.4.10 Environmental Justice

1. See the comment above under section 4.3.10.
2. Please note that this alternative would be less likely to negatively effect Tribal land.

1-12
(Cont'd)

1-14

4.7.5 Radiological Impacts of Sabotage Involving the CMRR Facility

1. It seems likely that any sabotage effort at TA-55 would not be limited to a single facility. This section (and the referenced Appendix) should address the possibility of simultaneous sabotage to all nuclear facilities at TA-55.

1-15

4.10.1 Unavoidable Adverse Environmental Impacts

1. This section states; "Overall air quality at LANL would not be changed by implementing any of the alternatives analyzed in this EIS." This may be true, but the TA-6 location for the CMRR would be further from and have less impact on Tribal land.

1-16

Response to Commentor No. 1

spaces is an example of lessons learned. The existing CMR Building combines these two functions and past experience indicate that this is not an optimum arrangement. As Chapter 3 addresses the existing environment, which includes past site events and accidents, no changes have been made to the text.

- 1-10: "Appropriate action" in the case of the unexpected discovery of cultural resources during site construction work would include assessing the nature of the discovery, contacting the apparent appropriate parties for consultation (the State Historic Preservation Officer and the group of individuals likely affiliated with the resource), making decisions about site data recovery, removal of the artifact or feature, or shifting of the construction around the feature, and other similar and associated activities. Traditional cultural properties at LANL could be affiliated with local pueblos, nearby tribes or Spanish, Mexican or U.S. settlers and homesteaders. Because the appropriate action required would be dependent upon the exact nature of the traditional cultural property discovered, exact language regarding what might constitute appropriate action has not been added to the *CMRR EIS*.
- 1-11: The objective of the accident analysis was to bound the consequences of severe accidents at the CMRR Facility whatever the cause. Terrorist attacks or extreme accidents at the CMRR Facility could directly affect the CMRR Facility itself, while leaving other facilities at LANL relatively undamaged. Other potential causes, such as earthquakes, could damage a widespread area throughout the Los Alamos area, including LANL. Section 5.2.11 and Appendix D of the *LANL SWEIS* provide an analysis of accidents involving multiple key facilities including those within TA-55. This *CMRR EIS* focuses on the environmental impacts that could result from implementation of the Alternatives described in Section 2.5.
- 1-12: Section 4.8 of the *CMRR EIS* provides an estimate of the aggregate (cumulative) impacts from present actions and reasonably foreseeable future actions at LANL. Aggregation of nuclear facilities at TA-55 would not exacerbate the potential pollution of land surrounding LANL because disposition paths for any specific type of waste generated at LANL is independent of the generation point. Although the risk of latent cancer fatalities is not the only radiological risk that could result from CMRR Facility activities, it is the largest and most serious radiological risk. While

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APPENDIX A ENVIRONMENTAL IMPACTS METHODOLOGIES

A.6.1 Description of Affected Resources and Region of Influence

1. This section begins with a description of water resources. This description should include traditional and ceremonial uses.

APPENDIX C EVALUATION OF HUMAN HEALTH IMPACTS FROM FACILITY ACCIDENTS

C.3.3 Accidents Selected for This Evaluation – Step 3

1. To reiterate the concern expressed in the comment under sections 4.3.9.2 and 4.5 above, the impacts from an accident involving all nuclear facilities at TA-55 should be discussed.

C.4.1 New CMRR Facility Alternatives

1. Again, the impacts from an accident involving all nuclear facilities at TA-55 should be discussed.

APPENDIX D ENVIRONMENTAL JUSTICE

D.4.1.3 Impacts of the No Action Alternative on Low-Income and Minority Populations

1. This section is limited to a discussion of risk from radiation. As stated earlier, Environmental Justice is about much more than radiation risk. See earlier comments about disparate effects from exposure from the aggregation of risk from multiple sources of pollution. Also, traditional risk assessment does not address Native American exposure pathways, so is not appropriate for discussing risk to tribal members.

D.4.2.3 Impacts of Alternatives 1 and 3 on Low-Income and Minority Populations

1. See the preceding comment.

D.4.4 Special Pathways Analysis

1. The analysis is incomplete. It lacks pathways, is limited to radionuclides, and is based on health effects to non-Natives.

Response to Commentor No. 1

zero radiological risk and pollution would not be an attainable goal, the radiological risks and pollution (discussed in Chapter 4) that could result from implementation of the action alternatives would be small.

- 1-13:** NNSA notes the commentor's concern about effluent releases to Mortandad Canyon. Under each of the alternatives, radioactive liquid waste would be treated at the RLWTF. Resulting effluent from the RLWTF would meet stringent discharge parameters prior to discharge in Mortandad Canyon. (See the Response 1-4.)
- 1-14:** The NNSA notes that Pueblo de San Ildefonso considers the Greenfield Alternative to be less likely to negatively affect Tribal land.
- 1-15:** The probability of sabotage occurring at TA-55 is small. Safeguards and security protective measures and programs would be taken to protect the CMRR Facility. Locating the CMRR Facility at TA-55 would enhance its overall security posture. Sabotage, as an initiating event for an accident, was not analyzed in the CMRR EIS; consequences of such an event would be very similar to the bounding accidents provided in the CMRR EIS. However, sabotage as an accident scenario initiator meets the requirements for serious consideration by the safeguards and security program and the facilities' protective measures would include redundant features to minimize the possibility of such an event.
- 1-16:** With regard to air shed effects, all four action alternatives considered would result in small and nearly identical air quality effects on Tribal land. (See Chapter 4.)
- 1-17:** As recommended by the commentor, text has been added to Appendix A.6.1.
- 1-18:** See responses to comments 1-11, 1-12, and 1-15. A special pathways analysis that addresses traditional Native American and Hispanic lifestyles is provided in Section D.4.4 of the *CMRR EIS*.
- 1-19:** As discussed in Section D.4.4, the *CMRR EIS* special pathways analysis is based on the special pathways analysis performed during preparation of the *LANL SWEIS*. It includes ingestion of contaminated foods that would be applicable to traditional Native American or Hispanic lifestyles. Potential health impacts resulting from exposure to radiation are

***Commentor No. 1: Pueblo De San Ildefonso,
John Gonzales, Governor (Cont'd)***

Response to Commentor No. 1

independent of the racial or ethnic origins of the exposed individual or population. NNSA knows of no credible method for evaluating radiological health effects that are dependent on the race or ethnic origin of the receptor.

Commentor No. 2: United States Environmental Protection Agency, Michael P. Jansky, P.E.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 30, 2003

Ms. Elizabeth Withers
U.S. DOE/NNSA
Los Alamos Site Office
528 35th Street
Los Alamos, NM

Dear Ms. Withers:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality Regulations (CEQ) for Implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) for the Proposed Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, New Mexico. The preferred alternative is to construct a new facility at Technical Area 55. This facility will replace the existing Chemistry and Metallurgy Research Building.

EPA classified your DPEIS and proposed action as "LO," i.e., EPA has "Lack of Objections" to the proposed alternative. Our classification will be published in the Federal Register according to our responsibility under Section 309 of the Clean Air Act, to inform the public of our views on proposed Federal actions.

EPA appreciates the opportunity to review the DEIS. We request that you send our office one (1) copy of the Final PEIS at the same time that it is sent to the Office of Federal Activities (2251A), EPA, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20004.

Sincerely yours,

Michael P. Jansky, P.E.
Michael P. Jansky, P.E.
Regional 309 Review Coordinator

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Response to Commentor No. 2

2-1

2-1: The NNSA acknowledges the EPA's classification of the *CMRR EIS* and the proposed action.

2-2

2-2: The NNSA acknowledges the request to send a copy of the Final *CMRR EIS* to the Region 6 office at the same time it is filed with the EPA's Washington Office of Federal Activities; NNSA has provided a copy as requested.

**Commentor No. 3: United States Department of the Interior,
Stephen R. Spencer**



IN REPLY REFER TO:

United States Department of the Interior

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Albuquerque, New Mexico 87103

03 JUL 30 11:58

June 27, 2003

ER 03/443

Elizabeth Withers
EIS Document Manager
Los Alamos Site Office
National Nuclear Security Administration
U.S. Department of Energy
528 35th Street
Los Alamos, NM 87544-2201

Dear Ms. Withers:

The U.S. Department of the Interior has reviewed the Draft Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico. In this regard, we have no comments. Thank you for the opportunity to review this document.

Sincerely,

Stephen R. Spencer
Acting Regional Environmental Officer

Response to Commentor No. 3

3-1

3-1: The NNSA notes the commentor's evaluation of the *CMRR EIS*.

Commentor No. 4: State of New Mexico, Environment Department, Ron Curry, Secretary



BILL RICHARDSON
GOVERNOR

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RON CURRY
SECRETARY
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June 23, 2003

Elizabeth Withers
CMRR EIS Document Manager
U.S. DOE/NNSA
Los Alamos Site Office
528 35th Street
Los Alamos, N.M. 87544-2201

Dear Ms. Withers:

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED
CHEMISTRY AND METALLURGY RESEARCH BUILDING REPLACEMENT
PROJECT AT LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW
MEXICO (CMRR DEIS)

This transmits New Mexico Environment Department (NMED) comments concerning the above-referenced Draft Environmental Impact Statement (DEIS).

BACKGROUND

The National Nuclear Security Administration (NNSA) of the Department of Energy (DOE) proposes to replace the existing Chemistry and Metallurgy Research (CMR) Building at the Los Alamos National Laboratory (LANL) with a new facility. The DEIS evaluates the potential environmental impacts associated with the proposed action of consolidating and relocating CMR capabilities from an aging building to a new building(s). The DEIS also addresses disposition of the existing CMR building. Impacts from the demolition of the existing CMR Building would result from the decontamination and demolition of the building and the transport and disposal of radiological and non-radiological waste materials.

The Preferred Alternative is to construct a new CMRR Facility at Technical Area (TA) 55. One of the new buildings would provide space for administrative offices and support functions. The other building(s) would house secure laboratory spaces for analytical chemistry and materials characterization activities. The buildings would be expected to operate for a minimum of 50 years. Tunnels may be constructed to connect the buildings. Transportation accidents for the

Response to Commentor No. 4

Commentor No. 4: State of New Mexico, Environment Department, Ron Curry, Secretary (Cont'd)

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Preferred Alternative, that can cause radiological exposures to workers and the public, are predicted to go to zero since the new CMRR at TA-55 would eliminate the need for transporting special nuclear material between it and the adjacent Plutonium Facility on public roads at LANL.

Alternative 2 is to construct the new CMRR Facility in an undeveloped "Greenfield" area within TA-6. Alternatives 3 and 4 are to continue using the existing CMR Building for administrative offices and to construct a new nuclear laboratory building(s) at either TA-55 or TA-6.

Some environmental impacts are common to all of the action alternatives described above. Each option would produce equivalent amounts of emissions and radioactive releases into the environment. Infrastructure requirements would be the same, and each alternative would generate the same amount of radioactive and non-radioactive waste, regardless of the ultimate location of the new CMRR Facility at LANL. According to the DEIS, soil erosion controls would be put in place during excavation and demolition activities for both the construction of the new CMRR and the demolition of the existing old CMR Building. Silt fences, hay bales, or other appropriate best management practices would be employed to ensure that fine particles are not transported by stormwater into surface water features in the vicinity of the CMR Building. The DEIS states that the overall air quality at LANL over the 50-year operating period would remain within standards during construction and operation of the new CMRR Facility.

Under the No Action Alternative, the NNSA cannot continue to operate the assigned LANL mission-critical CMR support capabilities in the existing CMR Building at an acceptable level of risk to public and worker health and safety without operational restrictions. The operational restrictions preclude the full implementation of the level of operation DOE decided upon through its Record of Decision for the LANL Site-Wide Environmental Impact Statement (SWEIS). The CMR Building is near the end of its useful life, and action is required now by NNSA to assess alternatives for continuing these activities for the next 50 years.

The Preferred Alternative decreases the overall nuclear footprint at LANL, makes more efficient use of resources and lowers the overall radiological release risk due to eliminating the possibility of transportation accidents.

We have three specific comments regarding both the operations at the new CMRR and the disposition of the old CMR Building.

1. The DEIS does not give details on the types and/or volumes of liquid radiological waste expected to be produced during the operation of the new CMRR Facility and identifies the lack of liquid radiological waste monitoring at the existing CMR. Future radiological waste streams are projected by the DEIS to increase. The current radiological liquid waste treatment system at TA-50 that will receive this increased liquid radiological waste stream may require additional upgrades to stay in compliance with the National Pollutant Discharge Elimination System (NPDES) permit and DOE Order.

2. The demolition of the existing CMR Building will generate an estimated 16,000 cubic yards of radioactive waste. Although some discussion elaborates on disposition options, final

Response to Commentor No. 4

- 4-1: Although the DEIS did not specifically identify a lack of liquid radiological waste monitoring at the existing CMR, the DEIS provides an estimate of liquid low-level radioactive waste generated annually under current CMR operations. This same estimate has been added to the Final EIS as bounding information regarding liquid low-level radioactive waste generation at the proposed CMRR Facility. (See the discussion of waste management impacts in Section 4.3.11.1.) Because some mission activities that are currently restricted at the CMR Building would be pursued at higher operations levels, some waste streams would be expected to increase over current levels. However, for liquid low-level radioactive waste generation, rates are not expected to increase. Operations levels at the CMRR Facility are based on the level of CMR Building operations identified in the Expanded Operations Alternative in the *LANL SWEIS*. The SWEIS evaluated the impacts on waste generation, including the RLWTF, of this expanded level of operations at the CMR Building. Waste generation at the CMRR Facility would not be expected to exceed that evaluated in the SWEIS. More specific information regarding the composition of the wastes is not available at this time.
- 4-2: Available information regarding CMR Building disposition generated waste is included in the *CMRR EIS* in Section 4.7.2. The exact volumes of different waste types would be dependent upon decisions about the level of building demolition pursued. Further, as indicated in Section 2.7.7, additional NEPA compliance review would be required when disposition of the CMR Building has undergone more detailed planning in about 15 years.

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Elizabeth Withers
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Page 3

disposition for all of the CMR Building's radioactive waste resulting from decontamination and demolition (D & D) activities should be clearly identified and not include temporary storage at TA-54, if it is avoidable.

3. Construction practices at LANL in the past have designed storm water conveyance systems to remove the storm water from building and parking lot drains as fast as possible and deliver the runoff to the canyons without treatment. This has contributed to flash flooding in canyons such as Sandia and Mortandad where contaminants from past and current operations are subject to mobilization and offsite transport by these flash flood events. The CMR buildings will occupy 8.75 acres of land and an additional 5 acres of land will be utilized for parking. These impervious surfaces will generate significant amounts of runoff into Mortandad Canyon if the preferred alternative is chosen (other canyons may be impacted if another alternative is chosen). The final configuration of the CMR project should mitigate undesirable storm water impacts on affected canyons. This project should be designed with storm water runoff controls that utilize detention or retention of storm water on the mesa tops. For example, constructed wetlands could be used for treating the runoff prior to discharge to the canyon system. Parking lots could be designed to direct water to shade tree plantings located internally to the parking lot. These types of designs would reduce the "first flush" contaminant loading from the parking lots and roof drains and reduce the instantaneous discharge of storm water to the canyon systems. This will result in a reduction of both new contaminant discharge to the canyon system and disturbance and re-transport of contaminants already deposited to soil bodies and sediments within the canyon system.

HAZARDOUS WASTE

General Comments:

1. Los Alamos National Laboratory (LANL) and the Department of Energy (DOE) must provide a more concise presentation of draft/final environmental impact statements. Factual information presented is often too vague and supported only by anecdotal statements, is not supported by the referenced documents or supported by any document references. For example, in Section A.6.2.2: Water Quality; states that the "determination of the impacts of the alternatives is summarized in Table A-8 and consisted of a comparison of the projected effluent quality with relevant regulatory standards and implementing regulations...". LANL and DOE do not support this statement by providing the assumptions, calculations, regulatory levels, etc. used to compile Table A-8. Table A-8 should compare individual constituent relative to applicable standards, limits, derived concentration guides, etc. It is difficult for the public and other stakeholders to evaluate/assess DOE and LANL conclusions on impacts to the environment without this information.

2. Prior to decontamination and demolition activities at the current CMR structure (TA-3-29), DOE and LANL must close all Resource Conservation and Recovery Act (RCRA) interim status and/or permitted units following proper procedures including but not limited to, public participation and permit modification requirements.

Response to Commentor No. 4

4-2
(Cont'd)

4-3

4-3: The NNSA notes the State of New Mexico's concerns regarding storm water management for the new CMRR Facility. As stated in Section 2.7 for all of the action alternatives considered, the design and operation of new buildings would incorporate appropriate storm water management controls. These controls would be included in the final design of the CMRR Facility, including site landscaping practices.

4-4: Best available information is included in the *CMRR EIS* analyses. The administrative record for the *CMRR EIS* includes the data reports, calculations, and other reference documentation used in analyzing environmental impacts and against which the methods and environmental impact indicators contained in Table A-8 and similar tables in the Appendix were applied. The NNSA is of the opinion that a comparison of individual constituents and their regulatory levels is not necessary or meaningful for inclusion in this table.

4-5: Prior to any decontamination and demolition activities at the existing CMR Building, NNSA and the LANL contractor would undertake all necessary actions, including any pertinent legal and regulatory requirements in effect at that time.

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3. Prior to D&D activities at the current CMR structure (TA-3-29), DOE and LANL must investigate and remediate all solid waste management units (SWMUs) and areas of concern (AOCs) potentially impacted by D&D activities.

4. SWMUs 55-011(d) a drain or outfall, and possibly others, are located within the proposed boundary or may be impacted by construction of the Chemistry and Metallurgy Research Building Replacement (CMR Replacement) preferred location at TA-55. DOE and LANL must investigate remediate all SWMUs and AOCs to appropriate ecological and human health based standards prior to initiation of construction activities at TA-55 (or TA-3 or TA-6). A work plan(s) outlining the investigation and remedial activities at the SWMUs and AOCs must be submitted to and approved by the NMED's Hazardous Waste Bureau (HWB) prior to corrective action activities. An investigation report documenting corrective action activities is also required. All waste generated during the remediation(s) must be characterized prior to disposal and subsequently stored and disposed in appropriate facilities.

5. If DOE and LANL have not already done so, the Seismic Hazards Borehole one (SHB-1), located to the west of TA-55, must be properly plugged and abandoned (according to New Mexico regulations) prior to construction activities. All other open borings, wells, etc. that are in the impacted area must also be identified and properly plugged and abandoned prior to commencement of construction activities. The locations of all borings and wells, prior to P&A activities, should be surveyed and the borehole/well should be screened for the presence of vapor phase contamination and water following proper procedures. A report documenting each well and the details of the surveying, screening and P&A activities associated with each well must be submitted to the NMED's HWB following completion.

6. DOE and LANL must identify and properly plug and abandon (according to New Mexico regulations) all open borings, wells, etc. in the general area surrounding the TA-3 CMR building, which may be impacted by D&D activities. The locations of all borings and wells, prior to P&A activities, should be surveyed and the borehole/well should be screened for the presence of vapor phase contamination and water following proper procedures. A report documenting each well and the details of the surveying, screening and P&A activities associated with each well must be submitted to the NMED's HWB following completion.

7. DOE and LANL should discuss in detail the volumetric increases in waste generation (i.e. transuranic, mixed transuranic, low-level, mixed low-level and hazardous wastes). For example, discuss what form(s) (e.g., liquid, solid, air) the waste streams and the expected percentage of each, list the constituents/radionuclides expected to be present in the various waste streams and identify expected concentrations and activities in each waste stream. It is difficult for the public and other stakeholders to scrutinize DOE and LANL conclusions without this information.

8. DOE and LANL should discuss in detail the expected impacts to air emissions and increased discharge to/from the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF). Discharge volume increases, constituents and associated concentrations and activities should be discussed in detail as it relates to each waste stream identified. It is difficult for the public and

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4-6

4-6: See response 4-5.

4-7

4-7: The NNSA notes the commentor's statements regarding preconstruction investigations, remediation, work plans, investigation reports and waste characterization needs. NNSA will comply with all applicable state and Federal laws and regulations if it goes forward with the CMRR Project.

4-8

4-8: The NNSA acknowledges the commentor's statements regarding plugging and abandonment of boreholes, wells and other such items, and necessary reports at TA-55, and will comply with applicable state regulations.

4-9

4-9: The NNSA acknowledges the commentor's statements regarding plugging and abandonment of boreholes, wells and other such items, and necessary reports at TA-3, and will comply with applicable state regulations.

4-10

4-10: The NNSA notes the commentor's statements about the amounts of the various possible waste streams that could be generated if one of the action alternatives were implemented. The *CMRR EIS* includes best available information, as well as being bounding information, about the various possible waste streams, as detailed information is not available.

4-11

4-11: The NNSA notes the commentor's statements about the air emissions and radioactive liquid waste volumes that could be generated if one of the action alternatives were implemented. The *CMRR EIS* includes the best available information, as well as being bounding information, about the various possible air emissions, as detailed information is not available.

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other stakeholders to scrutinize DOE and LANL conclusions regarding environmental impacts without this information.

9. DOE and LANL should clarify if the proposed site, located at TA-6, is suitable due to hazard radii associated with firing sites. Also, clarify if access to the proposed site, at TA-6, would be hindered or limited by firing site activities.

Section Specific Comments:

10. Section 3.5.1.3: Seismicity; DOE and LANL do not discuss seismic conditions at either of the proposed locations. Vaniman and Wohletz, 1993 (ER ID 48822) describe a zone of "abundant fracturing" around TA-55. As the zone of "abundant fracturing" is located on the trace of the Rendija Canyon Fault, it may be related. DOE and LANL must discuss in detail recent studies that have considered the TA-55 and TA-6 locations in order for DOE, LANL, the public and other stakeholders to adequately assess these locations for the possible location of the new CMR Building.

11. Section 3.6.1: Surface water; indicates the compliance during 2001 with the NPDES permit was "nearly 100 percent." Because construction of the new CMR Building will undoubtedly impact effluent discharges, DOE and LANL should discuss historic compliance with NPDES discharges from the TA-50 RLWTF outfall and resulting cumulative impacts to surface water, sediment quality and groundwater quality. In addition, as discharges from the RLWTF will be impacted, DOE and LANL should discuss their "compliance" history with internally DOE derived concentration guides (DCGs) for radionuclides. It is impossible for the public and other stakeholders to adequately scrutinize DOE and LANL conclusions regarding possible environmental impacts without this information.

12. Section 3.6.2: Groundwater; indicates "most aquifers underlying LANL and the vicinity, except for perched groundwater bodies, are considered Class II aquifers (i.e., those used or potentially available for drinking water or other beneficial use." NMED strongly disagrees with the statement, all groundwater or subsurface water potentially used for water supply (single household, municipal, etc.) having less than 10,000 pm total dissolved solids may potentially be used for "drinking water or other beneficial use." Beneficial use would include springs emanating from groundwater bearing intervals that wildlife/other receptors may utilize. The text should be updated to state that other groundwater bearing zones, in addition to the regional aquifer, are capable of water supply. In addition, DOE and LANL have demonstrated an interconnection between the surface water and regional aquifer systems as indicated by LANL Facility derived contaminants found in the regional aquifer (e.g., perchlorate, nitrate, tritium, etc.).

13. Section 3.6.2: Groundwater; does not indicate the actual subsurface conditions beneath Mortandad Canyon. Perched groundwater was encountered at 646 feet at R-15 (12 ppb perchlorate). Samples from the regional aquifer, R-15 indicate 4 ppb perchlorate. R-15 (pore water collected near the top of the regional aquifer contained 1662 ppb perchlorate at 740 feet). The top of the regional aquifer is identified at 958 feet. At intermediate well MCOBT-4.4 water

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- 4-12: The TA-6 proposed site is a suitable construction site. The NNSA only considered those sites at LANL where the CMRR Facility could reasonably be constructed and operated in its EIS analyses. Those areas that were considered as possible sites due to favorable site physical features were later screened from further consideration if operational constraints precluded their reasonable use for the Facility. The *CMRR EIS* includes a discussion of the site selection process in Chapter 2.6.3.
- 4-13: Section 3.5.1.3 discusses the relative distribution and frequency of earthquakes, while Section 3.5.1.2 discusses LANL site stratigraphy followed by a detailed discussion of structural geology and faulting. Specifically, a detailed discussion of geologic mapping and associated seismic investigations that have conducted by the LANL Seismic Hazards Program and others relative to TA-3, TA-6, and TA-55 is included in the last three paragraphs of Section 3.5.1.2 of the *CMRR EIS*.
- 4-14: Current compliance with National Pollutant Discharge Elimination System (NPDES) permit specifications and DOE guidelines, with regards to operation of the TA-50 RLWTF, is germane to a decision to construct and operate a new CMRR Facility at LANL and is discussed in Section 3.6.1.
- 4-15: The definition cited for describing aquifers in the vicinity of LANL is consistent with the three classes defined by the U.S. EPA in its *Guidelines for Groundwater Classification under the EPA Ground-Water Protection Strategy* (EPA 1986). DOE commonly uses this terminology in providing a general overview of groundwater resource potential around its sites using a consistent methodology, especially when sites in multiple states are being analyzed. Consistent with the State of New Mexico's groundwater standards, the text has been revised to state: "All groundwater underlying LANL and the vicinity having a total dissolved solids concentration of 10,000 milligrams per liter or less is considered a potential source of water for domestic or other beneficial use (NMAC 20.6.2.3000)."
- 4-16: The NNSA notes the State of New Mexico's detailed information about Mortandad Canyon groundwater quality and perched groundwater occurrences. A general description of site hydrogeology and groundwater quality is provided in Section 3.6.2 of the *CMRR EIS*. The implementation of any of the four CMRR Facility action alternatives would not be expected to affect groundwater quality at LANL, since the proposed

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was encountered at 485-520 feet and perchlorate ranging from 142-179 ppb, nitrate at 12-13.2 ppm (WQCC standard of 10 pm), and tritium at 14, 900 pick/L. Per chlorate was detected in core samples from the vamoose zone at MCOBT-4.4 and MCOBT-8.5, no plugged and abandoned, between 80 and 380 feet (per chlorate concentrations range between roughly 300 ppb and more than 800ppb). In addition, springs located throughout the facility and White Rock Canyon contains anthropogenic contaminants derived from the LANL Facility (e.g., per chlorate, high explosives, nitrate, tritium, strontium-90, etc.).

14. Section 3.6.2: Groundwater; indicates the RLWTF at TA-50 has installed a treatment system to remove per chlorate, but does not indicate that the treatment system only treats current discharges and does nothing to remove per chlorate from the down gradient and interconnected alluvial, intermediate or regional groundwater systems. It should be noted that LANL and DOE installed a permeable reactive barrier that may treat per chlorate in the shallow alluvial aquifer between alluvial monitoring wells MCO-4 and MCO-5. The effectiveness of the barrier has yet been demonstrated; however, it would only prove effective for alluvial groundwater treatment. The text should be updated to include all relevant information.

15. Section 3.11: Human Health; DOE and LANL should identify and describe in detail, the individual chemicals that comprise the "volatile organic compounds" and "hazardous air pollutants" as well as radio nuclides, concentrations and activities, volumes and types of impacted environmental media that may cause adverse health impacts. Contaminants can have highly variable health based standards that are dependent on a variety of factors such as the characteristics of the individual contaminant, exposure route(s) and affects of other commingled contaminants.

16. Section 4.3.6: Ecological Resources; In addition to discussions on loss of habitat due to construction of the new CMR Building, DOE and LANL should cite information (if available) regarding current facility operational impacts (e.g., air emissions and waste water discharges) on the overall ecological health (e.g., affected terrestrial and aquatic receptors; impacts to species populations, diversity, mutagenic affects, etc.) of the system. If no specific ecological information is available regarding current facility (including TA-3, TA-6, TA-50 and TA-55) operations, DOE and LANL should identify the impacts from the current/historic releases prior construction of a new facility where discharges are likely to increase. Impacts to the ecological resources should also be evaluated for the other alternatives/locations considered for the CMR building replacement.

17. Section 5: Applicable Laws, Regulations and Other Requirements; LANL and DOE should provide a list of all facility permits that will or may require modification (e.g., Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act), the timetable for such modifications and the changes that are anticipated.

AIR QUALITY

The proposed project is in an area that is currently in attainment for all National Ambient Air Quality Standards (NAAQS) and in compliance with National Emissions Standards for

4-16
(Cont'd)

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facility would replace the physical building housing existing operations rather than introduce an additional new facility and new operations to LANL that could reasonably result in additive environmental impacts. Therefore, the NNSA is of the opinion that no additional discussion of existing groundwater contamination is necessary.

- 4-17: The NNSA acknowledges the commentor's remarks about the treatment of perchlorates present in groundwater within Mortandad Canyon. As further described in response to Comment 4-16, the implementation of any of the four CMRR Facility action alternatives would not be expected to have any additional impact on groundwater in Mortandad Canyon or elsewhere at LANL. The reactive barrier installed within Mortandad Canyon, as noted by the commentor, has been in place less than a year. If effective, it would reduce contamination within the shallow alluvial aquifer. Sampling has recently been initiated to determine the barrier's effectiveness; data is not yet conclusive.
- 4-18: The NNSA notes the commentor's remarks about the human health discussion provided in Chapter 3 of the *CMRR EIS*. As discussed in Sections 4.2.9, 4.3.9, 4.4.9, 4.5.9, and 4.6.9, hazardous chemicals were used in the CMR Building would be stored and used in the new CMRR Facility. Quantities of these chemicals would be below threshold quantities set by the EPA (40 CFR 68). The laboratory use of 10 to a few hundred milliliter quantities of such chemicals that would actually be used would pose a hazard only to involved workers under accident conditions and would not result in appreciable releases to the atmosphere. Volatile organic compounds that could be released by construction vehicles and equipment during any construction of new facilities would be of temporary duration and would be typical of that expected during any building construction. Risks from hazardous chemicals do not warrant the level of detail requested.
- 4-19: The *LANL SWEIS* provides ecological resource impact information regarding overall LANL operations. The information provided in Chapter 3 of the *CMRR EIS* reflects updated ecological setting information including resource changes after the Cerro Grande Fire. The health of wildlife in the area and vegetation at LANL is also reported each year in the LANL Annual Surveillance Reports. Impacts specific to the CMRR

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Hazardous Air Pollutants (NESHAP). Although potential exists in the project for increase of air emissions, the project should not result in non-attainment or violation of air quality standards. However, there are special considerations for the project that are outlined below.

For each of the action alternatives (Alternatives 1, 2, 3 or 4), potential exists for temporary increases in dust and emissions from earthmoving and construction equipment during construction; however, the increases should not result in non-attainment of air quality standards. Dust control measures should be taken to minimize the release of particulates during construction. Contractors that supply asphalt for the project must have current air quality permits.

The DOE National Nuclear Security Administration should be aware that emissions resulting from the project must not exceed NESHAP. Asbestos emissions should be managed per applicable protocols and the DOE National Nuclear Security Administration can contact the New Mexico Air Quality Bureau for assistance in determining and complying with regulations pertaining to the management of asbestos emissions. The U.S. Environmental Protection Agency (EPA) has jurisdiction over radionuclide emissions, thus the DOE National Nuclear Security Administration should consult 40 CFR 61 Subpart H or contact EPA for assistance in determining and complying with applicable regulations.

Please let us know if you have any questions. We appreciate the opportunity to comment on this document.

Sincerely,



Ron Curry
Secretary

NMED File No. 1726ER

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Facility action alternatives is provided in Chapter 4, Sections 4.3 to 4.8, of the *CMRR EIS*.

- 4-20: The NNSA acknowledges the commentor's remarks about facility permits that would be needed if the NNSA pursues one of the CMRR Facility proposed action alternatives. NNSA will comply with the listed laws and all applicable regulations and permitting requirements in the event that one of the action alternatives is selected for implementation.
- 4-21: The NNSA acknowledges the commentor's remarks about dust control measures and air quality permits being required for asphalt suppliers.
- 4-22: The NNSA acknowledges the commentor's remarks about the need to meet the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for any CMRR Facility construction and operational activities. NNSA appreciates the offer of assistance from the New Mexico Air Quality Bureau in determining and complying with regulations pertaining to asbestos emissions.